

1. Record Nr.	UNINA9910458959703321
Titolo	Clinical decision support [[electronic resource] ] : the road ahead / / edited by Robert A. Greenes
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier Academic Press, c2007
ISBN	1-280-74688-2 9786610746880 0-08-046769-5
Descrizione fisica	1 online resource (599 p.)
Altri autori (Persone)	GreenesRobert A. <1940->
Disciplina	616.07/5
Soggetti	Diagnosis - Decision making - Data processing Clinical medicine - Decision making - Data processing Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Clinical Decision Support; Copyright Page; Table of Contents; Contributors; Preface; PART I COMPUTER-BASED CLINICAL DECISION SUPPORT: CONCEPTS AND ORIGINS; Chapter 1 DEFINITION, SCOPE, AND CHALLENGES; 1.1 INTRODUCTION; 1.2 DEFINITION OF COMPUTER-BASED CLINICAL DECISION SUPPORT; 1.3 FEATURES OF CD'S; 1.4 THE TALE OF A RELATIONSHIP; 1.5 SCOPE AND PLAN OF THIS BOOK; REFERENCES; Chapter 2 A BRIEF HISTORY OF CLINICAL DECISION SUPPORT: TECHNICAL, SOCIAL, CULTURAL, ECONOMIC, AND GOVERNMENTAL PERSPECTIVES; 2.1 PRIMARY RESEARCH METHODOLOGIES THAT HAVE BEEN PURSUED AND EXTENDED 2.2 DRIVING FORCES FOR CD'S 2.3 CONCLUSION; REFERENCES; Chapter 3 FEATURES OF COMPUTER-BASED CLINICAL DECISION SUPPORT; 3.1 CD'S AND THE HUMAN; 3.2 DESIGN AND STRUCTURE OF CD'S; 3.3 OTHER CONSIDERATIONS; REFERENCES; PART II CASE STUDIES AND CURRENT STATUS; Chapter 4 REGEN STRIEF MEDICAL INFORMATICS: EXPERIENCES WITH CLINICAL DECISION SUPPORT SYSTEMS; 4.1 INTRODUCTION; 4.2 HISTORY; 4.3 CONCLUSION; REFERENCES; Chapter 5 PATIENTS, DOCTORS, AND INFORMATION TECHNOLOGY: CLINICAL DECISION SUPPORT AT BRIGHAM AND WOMEN'S HOSPITAL AND

PARTNERS; 5.1 HISTORY

5.2 CLINICAL DECISION SUPPORT AND INPATIENT CPOE AT BWH 5.3  
DECISION SUPPORT DELIVERED USING THE OUTPATIENT ELECTRONIC  
HEALTH RECORD; 5.4 OVERARCHING STUDIES; 5.5 OVERARCHING  
LESSONS; 5.6 FUTURE DIRECTIONS; REFERENCES; Chapter 6 CASE  
STUDIES IN CLINICAL DECISION SUPPORT: LDS HOSPITAL EXPERIENCE;  
6.1 INTRODUCTION; 6.2 TOOLS FOR INFORMATION MANAGEMENT; 6.3  
TOOLS FOR FOCUSING ATTENTION; 6.4 TOOLS FOR PATIENT-SPECIFIC  
CONSULTATION; 6.5 CONCLUSION; REFERENCES; Chapter 7  
PENETRATION AND AVAILABILITY OF CLINICAL DECISION SUPPORT IN  
COMMERCIAL SYSTEMS; 7.1 INTRODUCTION  
7.2 CD'S PENETRATION AND AVAILABILITY IN COMMERCIAL SYSTEMS  
7.3 CLINICAL ALERTING IN 2002; 7.4 OBSTACLES TO CD'S IN 2002; 7.5  
WHAT CHANGED SINCE EARLY 2002?; 7.6 HOW FAR ALONG ARE CD'S  
VENDORS IN 2005?; 7.7 SELF-REPORTED VENDOR DATA AS OF  
FEBRUARY 2005; 7.8 CONCLUSION; REFERENCES; VENDOR WEB SITE  
REFERENCES; Chapter 8 LESSONS LEARNED; 8.1 ACADEMIC  
PROTOTYPES; 8.2 STANDARDS AND SHARING OF INTEROPERABLE  
CONTENT AND TOOLS; 8.3 USERS; 8.4 OTHER CONSIDERATIONS;  
REFERENCES; PART III GENERATION AND FORMULATION OF  
KNOWLEDGE; Chapter 9 HUMAN-INTENSIVE TECHNIQUES; 9.1  
INTRODUCTION  
9.2 THEORETICAL BASIS FOR KNOWLEDGE ACQUISITION 9.3 COGNITIVE  
TASK ANALYSIS; 9.4 COMPUTER-BASED KNOWLEDGE ACQUISITION; 9.5  
CONCLUSION; REFERENCES; Chapter 10 GENERATION OF KNOWLEDGE  
FOR CLINICAL DECISION SUPPORT: STATISTICAL AND MACHINE  
LEARNING TECHNIQUES; 10.1 INTRODUCTION; 10.2 LEARNING FROM  
DATA; 10.3 OVERVIEW OF LOGISTIC REGRESSION; 10.4 OVERVIEW OF  
SOME MACHINE LEARNING MODELS; 10.5 PREDICTION MODELS IN  
MEDICINE; 10.6 CONCLUSION; REFERENCES; Chapter 11 EVIDENCE-  
BASED MEDICINE AND META-ANALYSIS: GETTING MORE OUT OF THE  
LITERATURE; 11.1 SYSTEMATIC REVIEWS AND META-ANALYSES  
11.2 METHODOLOGIES OF SYSTEMATIC REVIEW AND META-ANALYSIS

---

## Sommario/riassunto

This book examines the nature of medical knowledge, how it is obtained, and how it can be used for decision support. It provides complete coverage of computational approaches to clinical decision-making. Chapters discuss data integration into healthcare information systems and delivery to point of care for providers, as well as facilitation of direct to consumer access. A case study section highlights critical lessons learned, while another portion of the work examines biostatistical methods including data mining, predictive modeling, and analysis. This book additionally addresses organization

---